

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

I. Amendments to the Claims

Independent claims 1, 12 and 13 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below.

Claims 2-11 and 14-17 remain unchanged.

II. 35 U.S.C. § 102(b) Rejection

Claims 1-3, 6-14, 16 and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kondo (U.S. 5,293,380). This rejection is believed clearly inapplicable to amended independent claims 1, 12 and 13 and the claims that depend therefrom for the following reasons.

Independent claim 1 recites an inter-station transmission method used in a mobile communication system comprising a mobile station and a base station. Further, claim 1 recites that the transmission method includes (i) in the radio base station, reproducing a clock synchronized with a clock used when downlink transmission data is transmitted from the communication control station, and (ii) by means of the reproduced-synchronized clock, transmitting uplink transmission data from the radio base station to the communication control station, the uplink transmission data being transmitted, without any changes, in a TDMA frame format used for a radio link between the radio base station and the mobile station. Kondo fails to

disclose or suggest the above-mentioned distinguishing features as recited in independent claim 1.

Initially, Applicants note that on pages 18-20 of the Office Action, the Examiner states that Kondo teaches that TDMA format is used for frame synchronization. The Examiner refers to the abstract, col. 1, lines 65-70, col. 2, lines 1-5, and col. 5, lines 60-65 to support his position. The Applicants respectfully disagree with the Examiner's position.

Rather, Kondo teaches that transmitted signals are not kept in a TDMA format. Applicants agree that Kondo teaches that the TDMA frame format is used for transmitting between mobile station 5 and radio base stations 3-a and 3-b. However, Kondo teaches that the transmission between the control circuit 1 and the radio base stations 3-a/b uses a different frame format than the TDMA frame format. Specifically, Kondo teaches that the control circuit 1 transforms the TDMA signals into a different transmission format which is agreed upon by the control station 1 and the radio base stations 3-a/b beforehand, when communicating with the radio base stations 3-a/b (see col. 5, lines 60-65). For example, when signals are transmitted from mobile station 5, to radio base station 3-a, to control circuit 1, to base station 3-b, and then back to mobile station 5 via base station 3-b, the signals do not remain in a TDMA format because the transmission format is transformed.

In view of the above, it is clear that Kondo teaches that when signals are transmitted between the radio base stations 3-a/b and the mobile station 5 through the control circuit 1, the signals do not remain in a TDMA format. Thus, it is apparent that Kondo fails to disclose or suggest transmitting uplink transmission data from the radio base station to the communication control station, wherein the uplink transmission data is transmitted, without any changes, in a

TDMA frame format used for a radio link between the radio base station and the mobile station, as required by claim 1.

More specifically, Kondo teaches that the timing pulse generator 56 (of the radio base stations 3-a/b) and the burst control circuit 52 (of the radio base stations 3-a/b) in combination play the role of the TDMA frame generator (see col. 7, lines 20-23), such that the radio base stations 3-a/b include a structure for generating TDMA frames. In addition, Kondo teaches that trunk circuits 42 and 43 convert/transform a signal format (i.e., TDMA frame format) that is used between the “TDMA frame generator” (i.e., base stations 3-a/b) and the control station 1.

Since Kondo requires that the trunk circuits convert/transform the TDMA frame format, it is apparent that the TDMA frame format is not used for the transmission between the control station 1 and the base stations 3-a/b. As a result, it is clear that Kondo fails to disclose or suggest transmitting uplink transmission data from the radio base station to the communication control station, wherein the uplink transmission data is transmitted, without any changes, in a TDMA frame format, as recited in claim 1.

Finally, as mentioned above, it is evident that Kondo requires that the TDMA frame format is converted/transformed. However, Kondo still fails to disclose or suggest, in the radio base station, reproducing a clock synchronized with a clock used when downlink transmission data is transmitted from the communication control station, and, by means of the reproduced-synchronized clock, transmitting the uplink transmission data to the communication control station in an unchanged TDMA format, as recited in claim 1.

Applicants also note that the object of the invention of Kondo is synchronization among a plurality of radio base stations at a time of hand-over. Kondo does not disclose or suggest an

object of the present invention, that is, to minimize a turnaround time of uplink and downlink transmissions. In other words, according to Kondo, the time necessary for data transmission processing between the radio base stations and the control stations (i.e., the time necessary for format conversion of transmission data) is not a problem to be solved. Accordingly, it can be assumed that the signal codes are transformed from a predetermined transmission format to the TDMA frame format, and vice versa, by the trunk circuits.

However, in the present application, in order to achieve the above-described object, the radio base station transmits uplink transmission data to a communication control station, the uplink transmission data being in an unchanged TDMA format (e.g., without performing format conversion) used for the radio link between the radio base station and the mobile station. Further, according to the present invention as recited in claim 1, in order to realize the above-mentioned process without performing the format conversion, the radio base station reproduces a clock that is synchronized with a clock used when the downlink transmission data is transmitted from the communication control station, to transmit the data. Kondo fails to disclose or suggest the synchronization and reproduction of the clock, as required by claim 1.

Therefore, because of the above-mentioned distinctions it is believed clear that independent claim 1 and claims 2-11 that depend therefrom are not anticipated by Kondo.

Furthermore, there is no disclosure or suggestion in Kondo or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Kondo to obtain the invention of independent claim 1. Accordingly, it is respectfully submitted that independent claim 1 and claims 2-11 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claims 12 and 13 are directed to a method and a system, respectively and each recite features that correspond to the above-mentioned distinguishing features of independent claim 1. Thus, for the same reasons discussed above, it is respectfully submitted that claims 12-27 are allowable over Kondo.

III. 35 U.S.C. § 103(a) Rejection

Claims 4, 5 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kondo and Borth et al. (U.S. 4,852,090). This rejection is believed inapplicable to claims 4, 5 and 15 because Borth does not disclose or suggest the above-discussed features of independent claims 1 and 13 which are lacking from Kondo. Therefore, no obvious combination of Kondo and Borth would result in, or otherwise render obvious, the invention recited independent claims 1 and 13 and claims 2-11 and 14-17 that depend therefrom.

IV. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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